Doc Code: AP.PRE.REQ

PTO/SB/33 (07-09)
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| PRE-APPEAL BRIEF REQUEST FOR REVIEW | Docket Number (Optional) 043210 | |
|---|---|---|
| | Application Number 10/524,680 | Filed October 18, 2005 |
| | First Named Inventor Yutaka Matsuoka et al. | |
| | Art Unit 1782 | Examiner Erik Kashnikow |

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant /inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [x] attorney or agent of record. Registration number 43,077
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____

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Signature

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Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of 1 forms are submitted.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of: **Yutaka MATSUOKA et al.** Art Unit: **1782**

Application Number: **10/524,680** Examiner: **Erik Kashnikow**

Filed: **October 18, 2005** Confirmation Number: **8336**

For: **INORGANIC LAYERED COMPOUND DISPERSION, PROCESS FOR PRODUCING THE SAME, AND USE THEREOF**

Attorney Docket Number: **043210**
Customer Number: **38834**

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop: AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

October 22, 2010

Sir:

This Request is filed concurrent with a Notice of Appeal in compliance with 37 C.F.R. §41.31. Applicant requests review and withdrawal of the final rejections of the claims.

Applicant submits that the impropriety of the rejections is apparent on the face of the rejections. The Examiner's reason for combining the cited reference is unsupported factually, logically and legally.

Claims 1, 3 and 6-13 are currently pending, and are rejected. Claim 1 is representative of the invention.

> 1. (Currently Amended) A gas barrier coating composition, comprising:
> an inorganic layered compound dispersion (c), wherein an inorganic layered compound (b) is dispersed using a peroxide (a) in a dispersion medium, and
> a gas barrier resin (d); and
> wherein a mixture containing the peroxide (a) and inorganic layered compound (b) in a mixing ratio by mass of (a)/(b) = 2/1 to 1/1000 is dispersion treated in a high speed stirring apparatus and/or a high pressure dispersing apparatus wherein the inorganic layered compound (b) is montmorillonite.

A critical essence of the invention is in the limitation wherein an **inorganic** layered compound (b) is dispersed using a peroxide (a) in a dispersion medium.

The claims are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 5,942,298 to Sakaya et al. in view of Gregorich et al. A critical part of the rejection is the Examiner's assertion that Gregorich et al. teaches that it is known in the art to use hydrogen peroxide in dispersions of "inorganic compounds". Upon the removal of the secondary reference Gregorich et al., there is no prima facie rejection for obviousness.

The Examiner concludes that one would have been motivated to combine the peroxide dispersion process of Gregorich et al. with the invention of Sakaya et al. because the films of Sakaya et al. are formed from a dispersion process, and Gregorich et al. "teaches that peroxide enhances dispersion of inorganic materials."

However, the Examiner is mischaracterizing the teaching of Gregorich et al. as motivation for one skilled in the art to have used peroxide with **all** dispersions, rather than dispersions that contain the specific organic matter that hydrogen peroxide is shown to affect.

The only motivation for one to have used peroxide when preparing the inorganic layered compound of Sakaya et al. would have been if the inorganic layered compound of Sakaya et al. contained silt-sized organic material that needs to be destroyed. Such is not the case.

The process of Sakaya et al. does not involve the organic-containing silt-sized material for which Gregorich et al. teaches the effective use of hydrogen peroxide. Thus, there is no reason to combine Gregorich et al. with Sakaya et al.

Gregorich et al. teaches that hydrogen peroxide is effective in disrupting organic-containing silt aggregates, and presumably therefore enhancing dispersion in comparison to lower levels of ultrasonic energy (page 400, first full paragraph).

However, Gregorich et al. teaches that the fact that "the peroxide treatment is ineffective in dispersing sand-sized microaggregates may due to failure of the peroxide to destroy completely *organic matter within sand-sized aggregates*."

The above passage teaches that peroxide is effective in disrupting silt-sized aggregates that contain organic matter within them *only because peroxide destroys the organic matter within the silt aggregates*. It is incorrect to assert that Gregorich et al. suggests that peroxide is effective in disrupting silt aggregates that do **not** contain significant amounts of organic matter. Yet, such is the essence of the present rejection.

Gregorich et al. teaches that ultrasonic dispersion is superior to using hydrogen peroxide for the destruction of organic-containing particles. The Examiner thus characterizes the suggestive power of Gregorich et al. as follows:

> (1) Gregorich et al. teach that hydrogen peroxide was not as effective destroying the completely organic matter, and therefore if there were no organic matter (as in Sakaya et al.), the hydrogen peroxide would be effective.

Such logic would be akin to arguing that "Given that using a single fishing rod is not as effective as fishing with a net, if there were no fish, then a fishing rod would be effective.

Of course, the response to such an assertion would be that if there were no fish, any "effectiveness" of a fishing pole would be meaningless, just as in the present situation wherein the

Examiner asserts that an agent taught as an organic-matter destroying agent would be effective in the absence of organic matter.

The Examiner then argues that:

> (2) Gregorich et al. teach that microaggregates consist of clay minerals and humified organic material (page 396), Gregorich et al. further teach that hydrogen peroxide is effective in dispersing silt sized aggregates, which would include both the clay minerals and the organic material.

In response, Applicant again notes that it is clear that Gregorich et al. teaches that hydrogen peroxide is effective in dispersing silt sized aggregates" **because they contain organic matter**, not because they happen to contain some inorganic matter. Without organic matter, hydrogen peroxide would not be shown to be effective. Sakaya et al. contains no silt-sized aggregates **containing organic matter**. Therefore, there is still no reason to use the peroxide of Gregorich et al. with the process of Sakaya et al.

The Examiner further argues that

> (3) The fact that it is hypothesized that the reason hydrogen peroxide is not as effective with sand-sized microaggregates is due to the failure of peroxide to destroy organic matter within the aggregates does not mean that the hydrogen peroxide, which was effective in dispersing the clay materials in the silt sized aggregates, has lost its effectiveness at the sand sized aggregates level.

Applicant previously cited Table 1 of Gregorich et al., and convincingly concluded that the hydrogen peroxide used in Gregorich can destroy the organic matter within sand and silt size fractions, but the hydrogen peroxide cannot destroy the organic matter within clay size fractions.

Gregorich et al. discloses that the peroxide cannot destroy the organic matter within clay size fraction. Because the inorganic layered compound used in Sakaya et al. and the clay size fraction obtained by the Gregorich are the same-sized materials, Sakaya et al. does not contain organic matter that could be destroyed by the peroxide in Gregorich.

Therefore, Applicant submits that the rejections are clearly incorrect, and Applicant respectfully requests reconsideration and withdrawal of rejections.

If this paper is not timely, Applicant petitions for an appropriate extension of time. Any fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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